ACTIA®
Vehicle Electronics & Diagnostics

ACTIA ATAL
Vehicle Electronics & Diagnostics

Multi-Diag®
Pocket 2

User Guide

since SW version – 11.1

Multi-Diag®
www.multidiag.com

Last update: May 26, 2011, The right is reserved to change the Manual

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You have just purchased a Multi-Diag diagnostic tool and we thank you for your trust.

To help you familiarise yourself quickly and easily with the product, this user guide introduces you to all the functions of your new equipment… Just let us walk you through.

Developed by ACTIA, a major player in the field of vehicle diagnostic in Europe, the Multi-Diag range accompanies you daily through all car maintenance and repair operations.

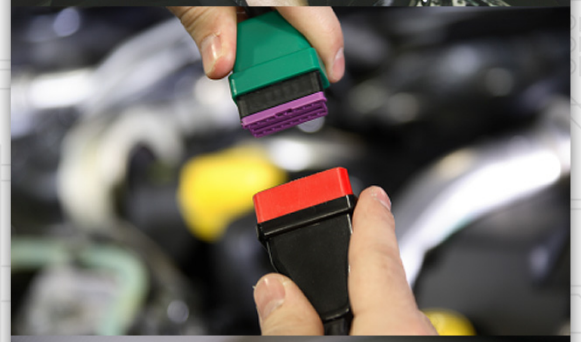
- Resetting of maintenance indicators
- Reading / Deletion of DTC's
- Reading of parameters (graphic representation)
- Testing of actuators
- ECU configuration
- Coding (injectors, electronic valves…)

Multi-Diag offers you fully innovative functions, giving you a head start whenever you are performing maintenance work on a vehicle.

- A Workshop mode and an Expert mode
- An Express Diag function
- The diagnostic report
- An Interface with the technical databases, etc.

The whole ACTIA expertise in a multi-make diagnostic device.

ACTIA®
Vehicle Electronics & Diagnostics



ACTIA: our commitments and guarantees

Over 20 years' partnership with vehicle manufacturers: a unique expertise.

Thanks to their expertise in the electronic architecture of vehicles, ACTIA devised the diagnostic in 1985. Since then, ACTIA have been the diagnostic partner of major manufacturers, and provide network support throughout the world. This know-how we have shown in our dealings with manufacturers is a unique guarantee in the world of multi-make diagnostic, and one of the keys to the success of Multi-Diag. As a result, ACTIA is working at the very heart of all technological and regulations issues in diagnostic, and can anticipate many developments. Today, over 20,000 users of the Multi-Diag range benefit from the ACTIA expertise.

In the field, to help you build the workshop of the future

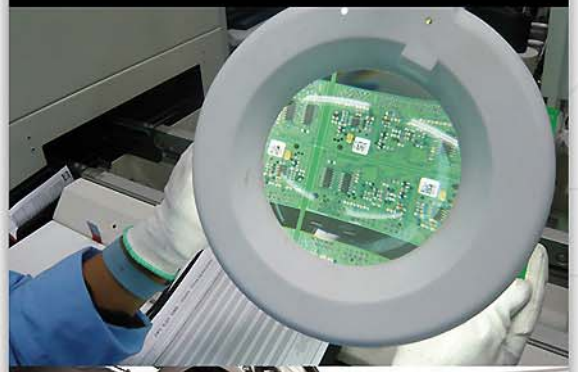
With the takeover in 2003 of MULLER BEM – a benchmark in garage equipment and technical inspection – the ACTIA group offers to their customer a package deal in garage equipment – wheel check, anti-pollution devices, test benches, vehicle lifts… Moreover, their in-depth knowledge of the garage environment enables ACTIA to develop diagnostic tools which are perfectly suited to requirements in the field: performance, ergonomics, mobility, communication… while anticipating the garage of the future.

Multi-Diag equipment and services: the ACTIA trademark quality

With Multi-Diag, you benefit from the same quality of service as manufacturers' after-sales networks throughout the world: regular upgrades, assistance, training and support…

All ACTIA devices are developed in the group's design offices and manufactured in the group's factories, which are international benchmarks in the area of PCB production and assembly of complex systems for the automotive and aeronautics sector.

ACTIA®
Vehicle Electronics & Diagnostics



Diagnostic stations

Further details on page 12

Multi-Diag Pocket 2

Vehicle Communication Interface (VCI)

Further details on page 06

VCI 1 wire

or

VCI 2 wire

or

VCI 2 Bluetooth

Software

Further details on page 20

Multi-Diag software suite including the various diagnostic applications.

I – COMMUNICATION INTERFACE (VCI)

Description

Multi-Diag®

This interface between the diagnostic tool and the vehicle being examined is used for communication with on-board systems.
It is connected:

- to the vehicle via a vehicle diagnostic cable
- to the tool via the communication interface in wire mode (USB or RS232 port) or in Bluetooth mode.

VCI 1 - With wire

- 1 VCI unit with wire connection via USB or RS232 cable
- 1 diagnostic cable for connection to the vehicle

*Compliant with standard **SAE J2534 -1, -2 (Pass-thru)** and therefore meeting **EURO 5** requirements*

VCI 2 - Bluetooth

- 1 VCI unit with wireless connection (Bluetooth)
- 1 cable for connection in wire mode to the USB port

*Compliant with standard **SAE J2534 -1, -2 (Pass-thru)** and therefore meeting **EURO 5** requirements*

VCI 2 - With wire

- 1 VCI unit with wire connection via USB or RS232 cable
- 1 diagnostic cable for connection to the vehicle

*Compliant with standard **SAE J2534 -1, -2 (Pass-thru)** and therefore meeting **EURO 5** requirements*

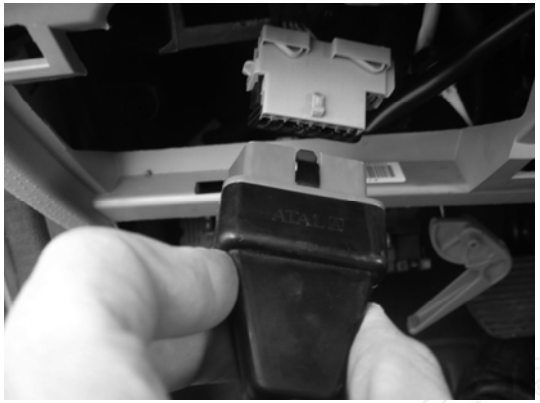
I – COMMUNICATION INTERFACE (VCI)

Connection

Step 1

- Connect the OBD cable to the VCI (25-pin connector).

Step 2



- Locate the diagnostic plug on your vehicle. Refer to ***page 48*** in this guide.
- Connect the diagnostic cable to the vehicle. If an adapter is required, refer to ***page 8***.

Step 3

- Connect the VCI to your diagnostic station:
  - VCI with wire: directly connect the port cable of your tool.
  - VCI Bluetooth: follow the Bluetooth connection procedure described on ***page 35***.

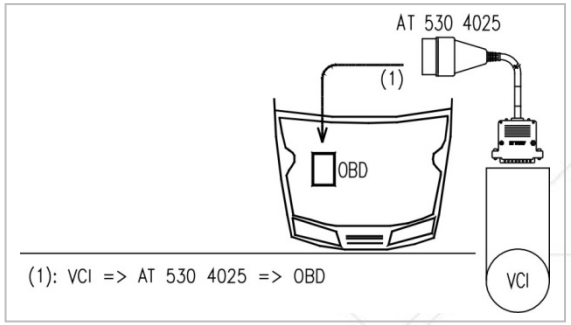
II - ADAPTER CABLES

In order to ensure compatibility with the greatest possible number of manufacturers, we offer a full range of cables, available from our commercial network.

OBD

AT530 4010 or
AT530 4025

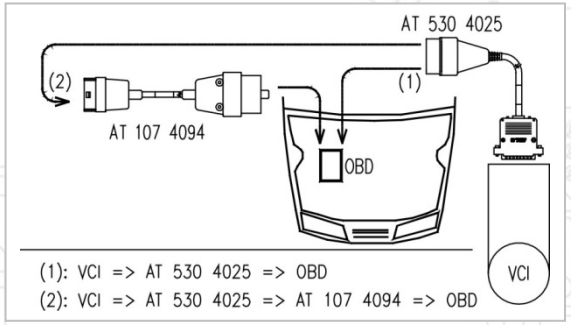
Ref. AC911776



BMW

AT107 4083 or
AT107 4094

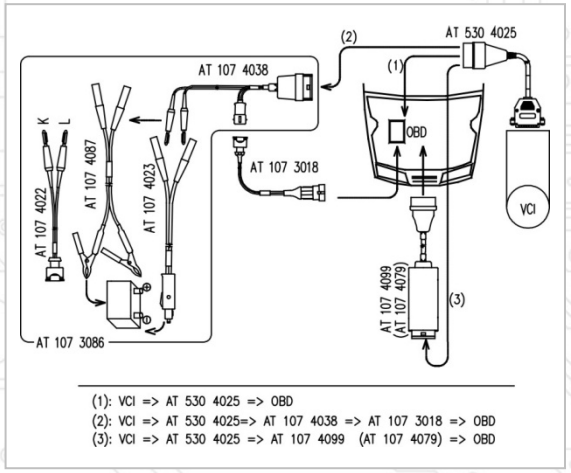
Ref. AC911801



FIAT – AUTOBIANCHI ALFA ROMEO – LANCIA

AT1073018

Ref. AC911786

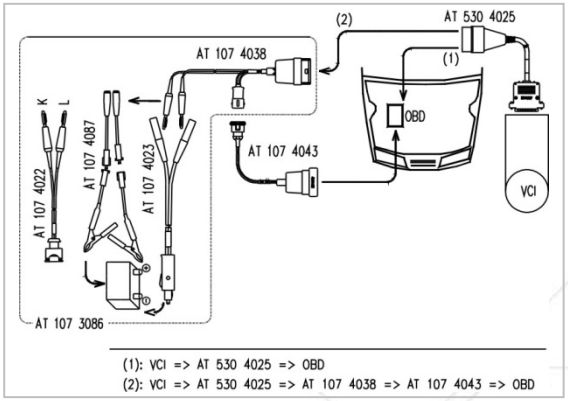


II - ADAPTER CABLES

LADA

AT107 4043

Ref. AC911785



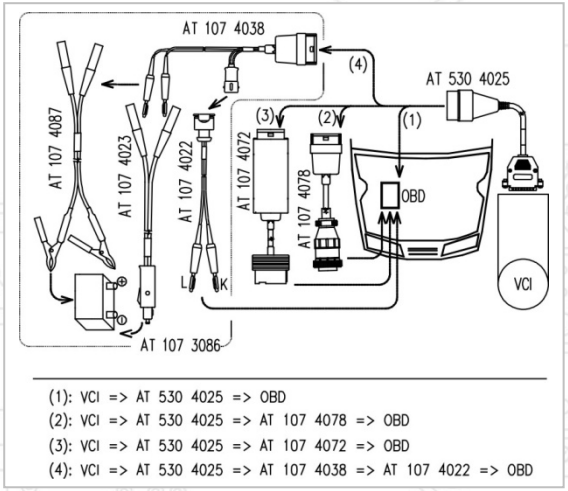
MERCEDES

AT107 4084

Ref. AC911850

AT107 4085

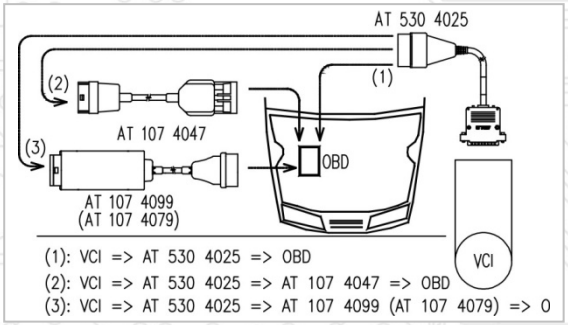
Ref. AC911851



OPEL

AT107 4047

Ref. AC911782



II - ADAPTER CABLES

VOLKSWAGEN SKODA – SEAT - AUDI

AT107 4049

Ref. AC911779

AT107 4033

Ref. AC911777

AT107 4084

Ref. AC911850

FORD

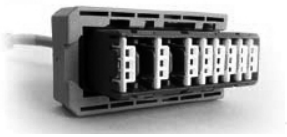
AT107 4090

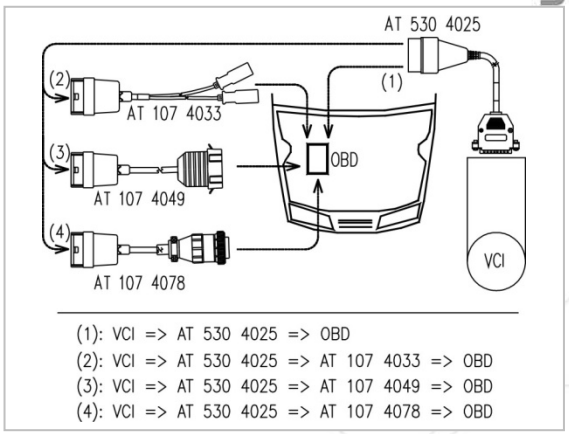
Ref. AC911708

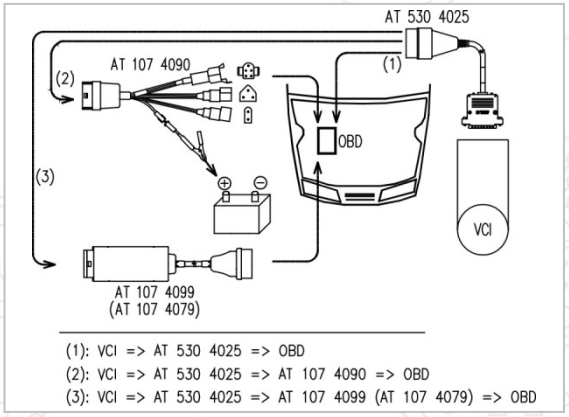
PEUGEOT - CITROËN

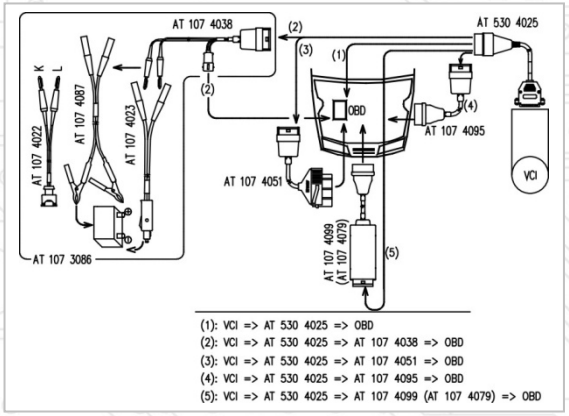
AT107 4051

Ref. AC911781





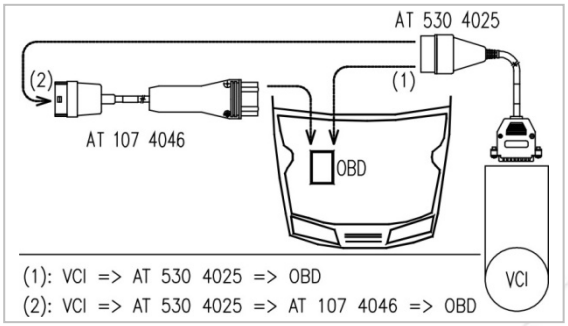




RENAULT

AT107 4046

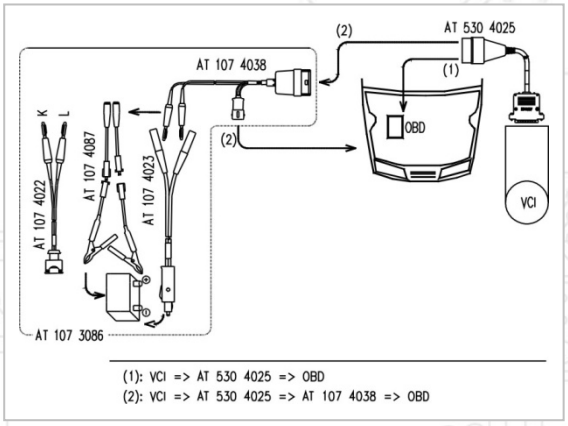
Ref. AC911780



Universal Connection Parts

AT1073086

Ref. AC911778



Universal Connection Parts

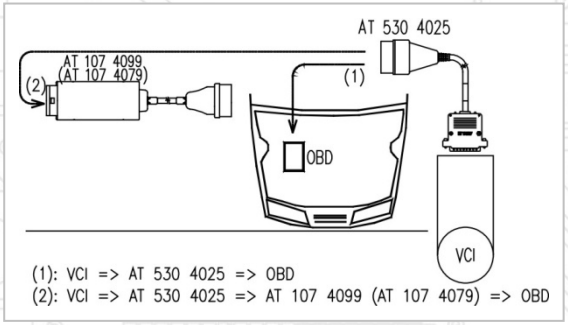
OBD1 n/A

AT1073086

Ref. AC911907

The OBD 1n/A cable is used to perform common operations on the following systems:

- Ford MS CAN
- Peugeot / Citroën CAN
- Land Rover, suspension functions
- Opel: MS CAN
- Fiat: LS CAN (Grande Punto)



Multi-Diag Pocket 2

- **Multi-Diag Pocket 2 is a compact device for complex electronic control units diagnostics**
- **Multi-Diag Pocket 2 allows diagnostics of cars equipped OBD diagnostic connector**
- **For diagnostics of old cars can be used universal adapter (which is in set included) or adapters for individual car makes - see options Multi-Diag Adapters**
- **Software update is possible by CD or via Internet**

Multi-Diag Pocket 2 – Technical characteristics

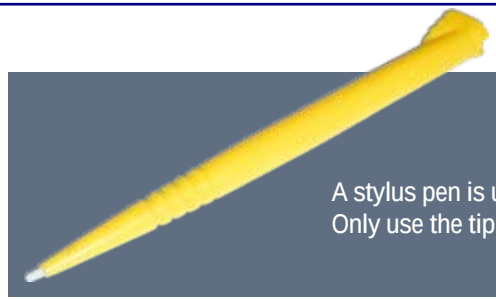
Multi-Diag®

Windows 7

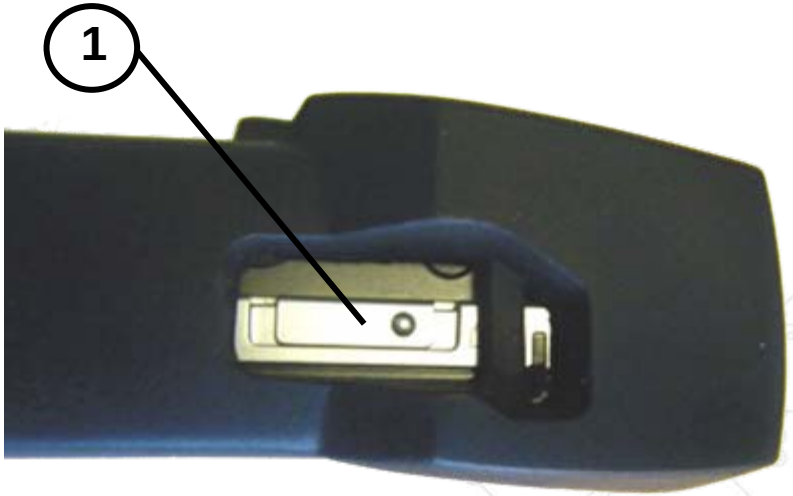
Ergonomic design with emphasis on garage environment. Touch screen allowing mouse functions.
Perfectly adapted to work with touch screen.

µP	Intel ATOM 1.2 GHz
Memory	1GB
HDD	SSD 16GB
OS - Platform	Windows 7 Home Premium OEM
Screen	1024 x 600 (Widescreen)
Display	Color 7", Touch Screen
Working	5 h. (in use) / 6 h. (sleeping)
Express Diag time (average)	1min 55s
Dimension	22.1 x 11.7 x 2.25 cm
Weight	660g
WLAN	WiFi 802.11b/g
BlueTooth	2.0+EDR
Multimedia	Microphone, webcam

Fan less Technology
SSD 16GB (instead of the internal hard disk)



A stylus pen is used to activate the touch screen display and functions in the same way as an external mouse.
Only use the tip of the stylus pen when interacting with the LCD display to prevent damage to the display surface



1 On/Off Button

Push the button towards the left and wait 5 seconds.

2 Light

These indicators are bright when the tablet is powered up:

- **blue, the tablet is functioning**

Indicators flash when the processor makes a task

Buttons and Lights

Multi-Diag®

1 **Joystick**

2 **Webcam**

3 **A - « OK » Button**

Left button of a mouse

4 **B – Right button of a mouse**

5 **Microphone**

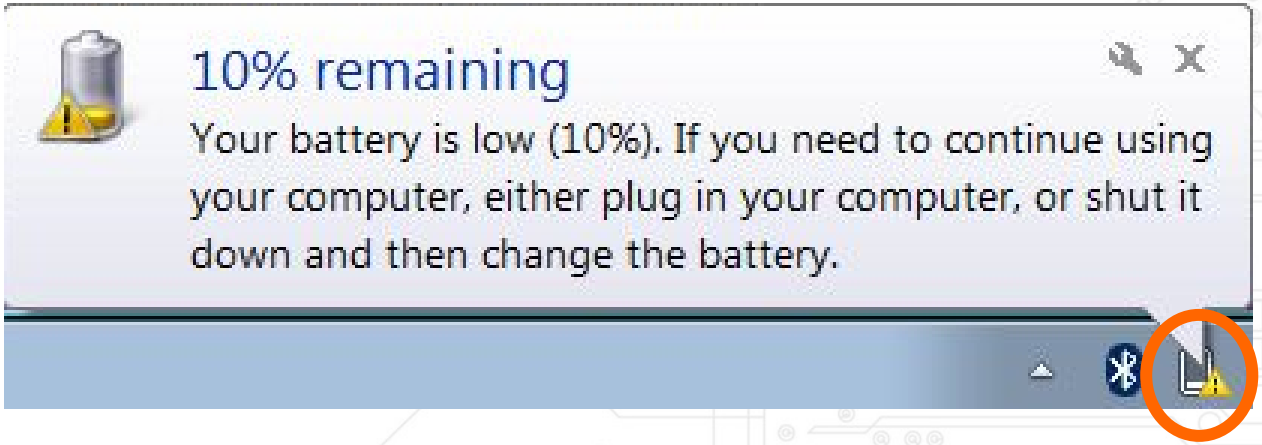
6 **Shortcut to the touch-keyboard**

7 **FN – Functions Button**

8 **M – Menu Button**

Warning indicator light of the battery

- **the following message is displayed at the lower right of the taskbar when the battery is almost empty.**


10% remaining
Your battery is low (10%). If you need to continue using your computer, either plug in your computer, or shut it down and then change the battery.

Warning: the tool switches off alone when the battery is totally empty !!!

Ports

1 USB port

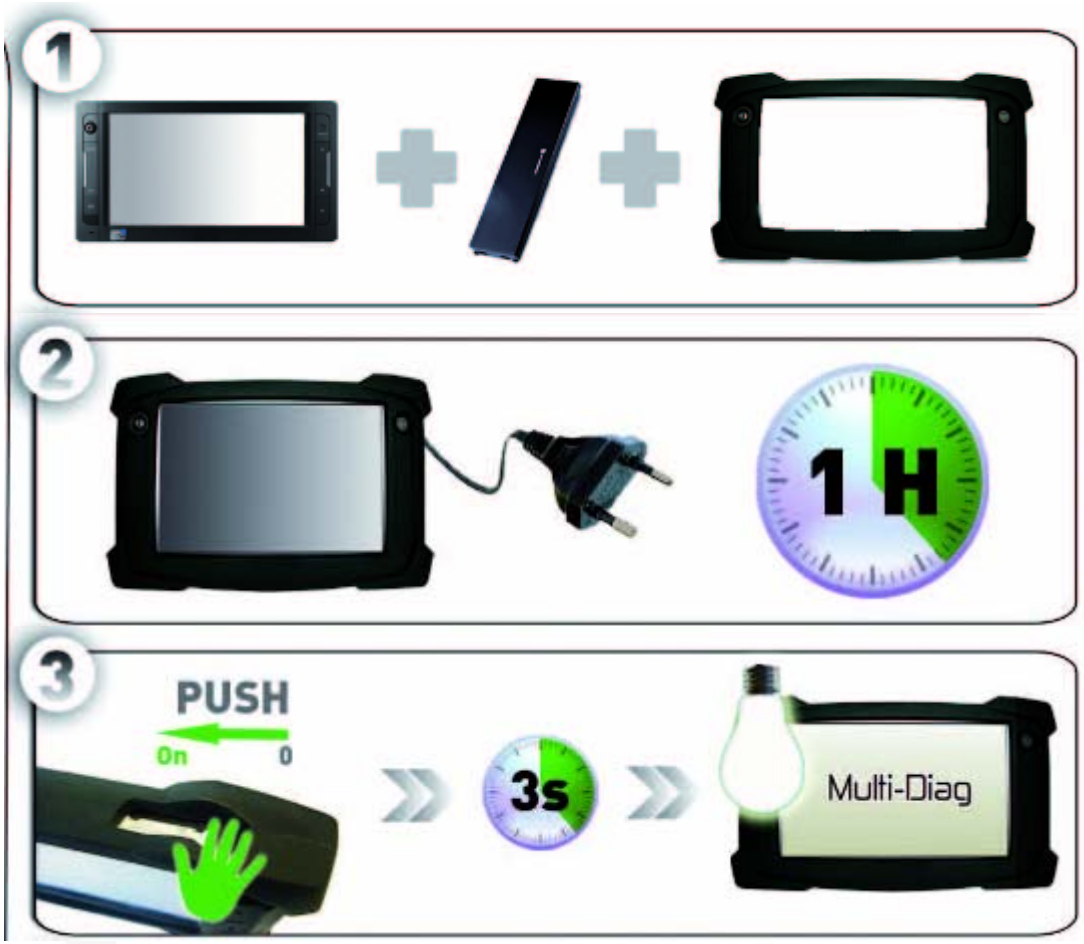
2 Port of card SD additional

3 I/O multi-port

4 Power connector

III – DIAGNOSTIC DEVICE

To start the first device



1. Insert the battery into the tablet then put the protective enclosure.

2. Plug the tool to the power supply during 1 hour.

3. Switch on the tool by pushing to button on the left (see Page 14), wait 5 seconds while the system starts.

Important notice

- *Before Windows re-installation* ***is necessary connect the USB splitter with at least 2 USB ports self-powered*** *for connection of the keyboard and DVD drive. When you install Multi-Diag Office, you can already use the virtual keyboard, that can be launched as is on – see Page 15.*
- *Multi-Diag shall be operated in compliance with the User's Manual.*
- *The communication interface (VCI) should not be connected to vehicle before Multi-Diag Pocket 2 is started (first, start the computer, second, connect the VCI to diagnostic plug).*
- *For operating* ***Tablet PC****, you shall use only the supplied „pen" so as not to damage the touch-screen.*
- *Do not use the diagnostic tool in the rain and do not put in on wet surfaces.*
- *Do not put the diagnostic tool on hot surfaces.*
- *The device shall not be transported or temporarily stored on open platforms which are not protected against rain or in vehicles or rooms where acids, chlorine, mercury vapours etc. can be present.*
- *To clean it, use suitable detergents (cleansing articles for screens of monitors). Do not use solvents.*
- *Non-usable batteries are a dangerous waste and shall be handled accordingly. They shall not be disposed in the ordinary communal garbage.*
- *The universal adapter (AT 107 3086) should be connected to the vehicle battery first and only after that to the* ***Multi-Diag VCI***
- *If you install the program into a computer with Windows 2000/XP/Vista/7 operation systems, you must have administrator rights (see Page 20).*

Possible installation problem on Windows Vista / Windows 7

*Before you install **Office Multi-Diag** on **Windows Vista** or **Windows 7**, it is necessary to ensure the following conditions:*

- *The actual **Multi-Diag Office** program **must not be running***
- *YOU MUST **have administrator rights!***
- *YOU MUST **disable the UAC (User Account Control) service** – see Page 21 or 22*
  - *Following these changes, it is necessary to restart the computer*
  - *After installation, do not forget to set the default values and restart the system!*

Disable the UAC (user account control) – **Windows Vista**

For Windows Vista UAC (User Account Control) off as follows:

- *In "**Control Panel**" (Start/Control Panel) go to the section "**User Account**"*
- *Go to the section "**Turn User Account Control on or off**"*
- *Tick appropriate box - see picture*

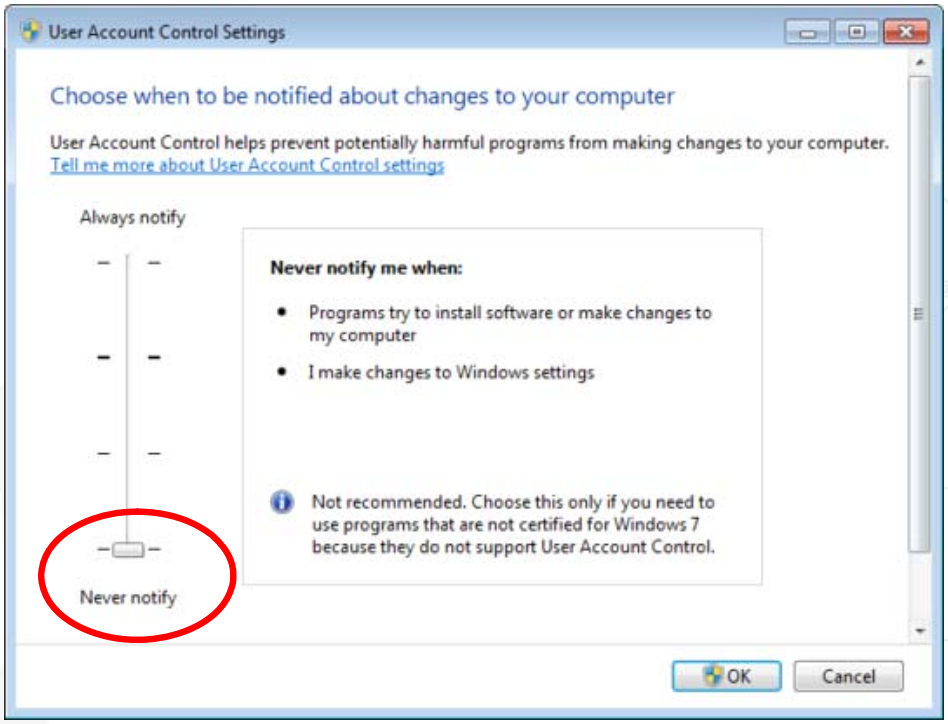
User Accounts ▸ Turn User Account Control On or Off
Search
File Edit View Tools Help
Turn on User Account Control (UAC) to make your computer more secure
User Account Control (UAC) can help prevent unauthorized changes to your computer. We recommend that you leave UAC turned on to help protect your computer.
Use User Account Control (UAC) to help protect your computer
OK
Cancel

Notice:
After installation, do not forget to set the default values and restart the system!

Disable the UAC (user account control) – **Windows 7**

For Windows 7 UAC (User Account Control) off as follows:

- *In "**Control Panel**" (Start/Control Panel) go to the section "**User Account and family Safety**"*
- *Go to the section "**Change User Account Control setting**"*
- *In the "**Always notify**" to reduce the value of the slider to "**Newer notify**" – see picture*


User Account Control Settings
Choose when to be notified about changes to your computer
User Account Control helps prevent potentially harmful programs from making changes to your computer.
Tell me more about User Account Control settings
Always notify
Never notify me when:
Programs try to install software or make changes to my computer
I make changes to Windows settings
Not recommended. Choose this only if you need to use programs that are not certified for Windows 7 because they do not support User Account Control.
Never notify
OK
Cancel

Notice:
After installation, do not forget to set the default values and restart the system!

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Software protection system

Since version SW Multi-Diag 9.2 version introduces a new software protection system. The activation password can be requested after Multi-Diag launch or during of Multi-Diag work depending on your license. The activation password shouldn't be requested in case of version upgrade.
Since version Multi-Diag SW 10.2, the support to the 4-day trial version of the programme was terminated.

Warning and recommendation for the internet connection

Prior to proceeding with the installation, it is recommended to have the device connected to the Internet.

A) The device will dispose of a functional internet connection

If the device has a functional Internet connection, all SW-HW authorization will proceed automatically and the installations will ensue automatically after a certain time limit.
We therefore recommend connecting the device to the Internet prior to any update and verify this connection for reliability and integrity (e.g. open a browser and click on any link). Only then launch the actual installation or update.

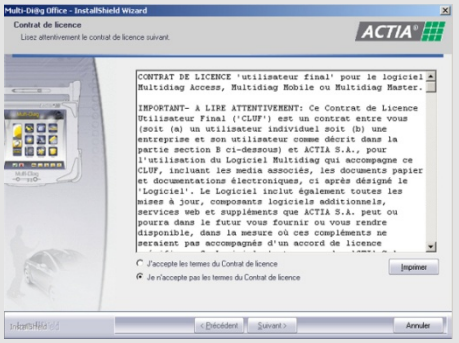
B) The device will not dispose of a functional internet connection

If the device does not have a functional Internet connection, all authorizations (entering the authorization code) will be performed manually and over the phone with the authorization centre (Hot Line) of ATAL spol. s r.o. Tábor or potentially via your dealer.

1

Insert the Multi-Diag DVD in your drive
to launch the installation of the Multi-Diag software.

2


Multi-Diag Office - InstallShield Wizard
Contrat de licence
Lisez attentivement le contrat de licence suivant.
ACTIA
CONTRAT DE LICENCE 'utilisateur final' pour le logiciel Multidiag Access, Multidiag Mobile ou Multidiag Master.
IMPORTANT- À LIRE ATTENTIVEMENT: Ce Contrat de Licence Utilisateur Final ('CLUF') est un contrat entre vous (soit (a) un utilisateur individuel soit (b) une entreprise et son utilisateur comme décrit dans la partie section B ci-dessous) et ACTIA S.A., pour l'utilisation du Logiciel Multidiag qui accompagne ce CLUF, incluant les media associés, les documents papier et documentations électroniques, ci après désigné le 'Logiciel'. Le Logiciel inclut également toutes les mises à jour, composants logiciels additionnels, services web et suppléments que ACTIA S.A. peut ou pourra dans le futur vous fournir ou vous rendre disponible, dans la mesure où ces compléments ne seraient pas accompagnés d'un accord de licence
J'accepte les termes du Contrat de licence
Je n'accepte pas les termes du Contrat de licence
Imprimer
< Précédent
Suivant >
Annuler

Read the license contract displayed on the screen. Select
"I accept the terms of the license contract".
Click on the **"Next"** button.

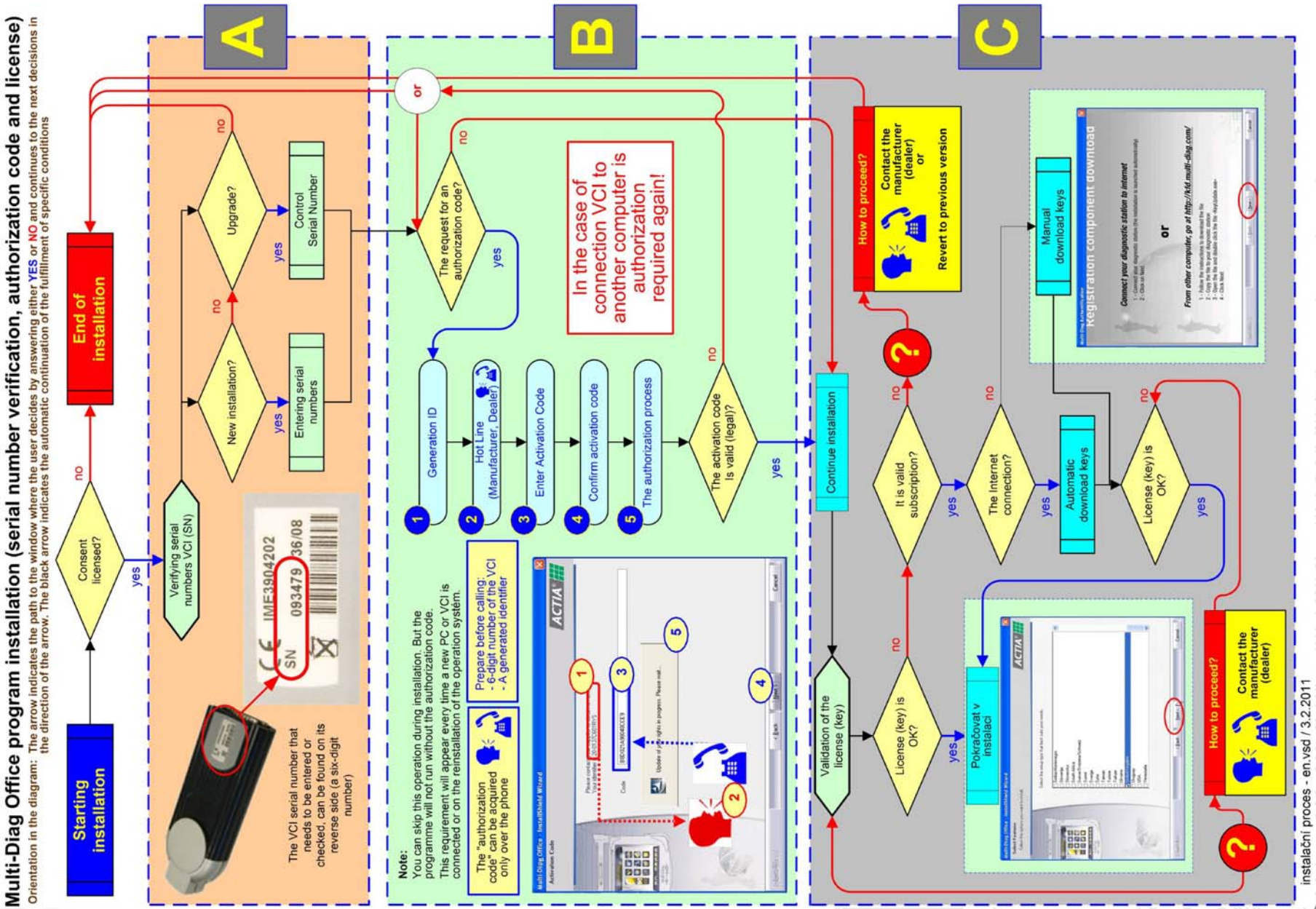
Installation diagram (development diagram) for Multi-Diag office

Note:
The print-friendly version of the installation diagram (development diagram) is available at the website www.atal.cz under the section SUPPORT (FAQ).
When installing Multi-Diag-Office, we recommend using the installation (development) diagram – see figure on next page depicting the individual steps of taking decisions when verifying the validity of the licence number, authorization code and the entitlement to use the actual installed software.

Orientation in the diagram:
The arrow indicates the path to the window where the user decides by answering either YES or NO and continues to the next decisions in the direction of the arrow: Blue line – positive decision
Red line – negative decision
Black line – automatic continuation

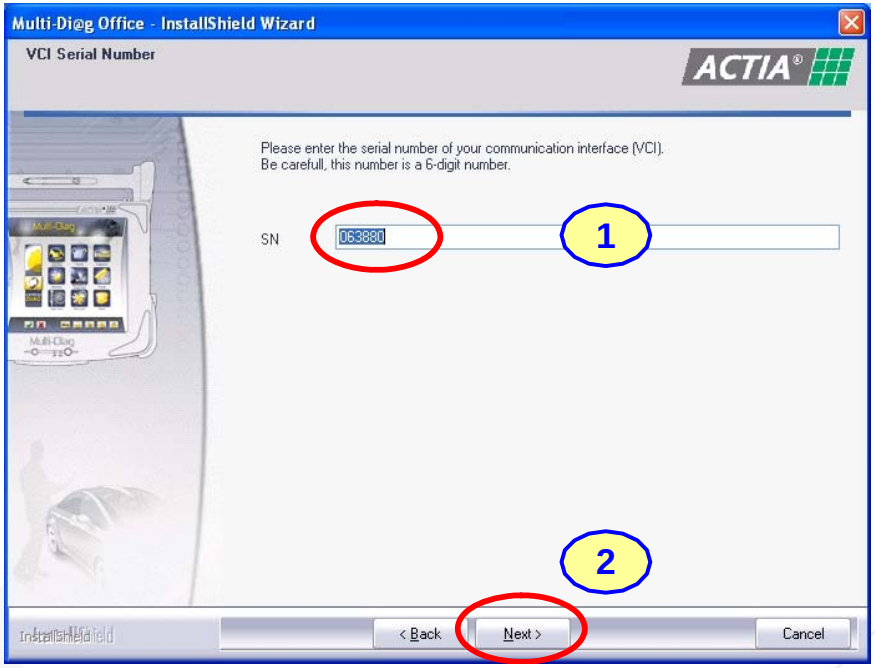
Multi-Diag®

Installation diagram (development diagram) for Multi-Diag Office


Multi-Diag Office program installation (serial number verification, authorization code and license)
Orientation in the diagram: The arrow indicates the path to the window where the user decides by answering either YES or NO and continues to the next decisions in the direction of the arrow. The black arrow indicates the automatic continuation of the fulfillment of specific conditions
A
B
C
Starting installation
Consent licensed?
no
yes
End of installation
Verifying serial numbers VCI (SN)
Upgrade?
New installation?
Control Serial Number
Entering serial numbers
The VCI serial number that needs to be entered or checked, can be found on its reverse side (a six-digit number)
IME3904202
SN 093479 36/08
or
The request for an authorization code?
Generation ID
Hot Line (Manufacturer, Dealer)
Enter Activation Code
Confirm activation code
The authorization process
The activation code Is valid (legal)?
In the case of connection VCI to another computer is authorization required again!
Note:
You can skip this operation during installation. But the programme will not run without the authorization code.
This requirement will appear every time a new PC or VCI is connected or on the reinstallation of the operation system.
The "authorization code" can be acquired only over the phone
Prepare before calling:
- 6-digit number of the VCI
- A generated identifier
Continue installation
How to proceed?
Contact the manufacturer (dealer)
or
Revert to previous version
Validation of the license (key)
License (key) is OK?
Pokračovat v instalaci
It is valid subscription?
The Internet connection?
Automatic download keys
Manual download keys
Registration component download
Connect your diagnostic station to internet
or
From other computer, go at http://ktd.multi-diag.com/
License (key) is OK?
How to proceed?
Contact the manufacturer (dealer)
instalační proces - en.vsd / 3.2.2011

3 *Requirement for entering the serial number of VCI*

See the block diagram on Page 25 - section A



If it is:

- *A brand new installation, the box will be (pos. 1) empty*
- *upgrade, bude políčko (poz 1) předvyplněné*

Recommendation:
Prior to proceeding to another step of the installation (update), we recommend you connect to the Internet or potentially make sure that the device has really established a functional connection to the Internet (see Page 23), because this moment is critical for further installation.

Note:
The serial number of the VCI interface that needs to be entered or checked (pos. 1), can be found on its reverse side (a six-digit number) – see Page 25 - Section A

4 *Requirement for the authorization code (always over the phone)*

See the block diagram on Page 25 - section B

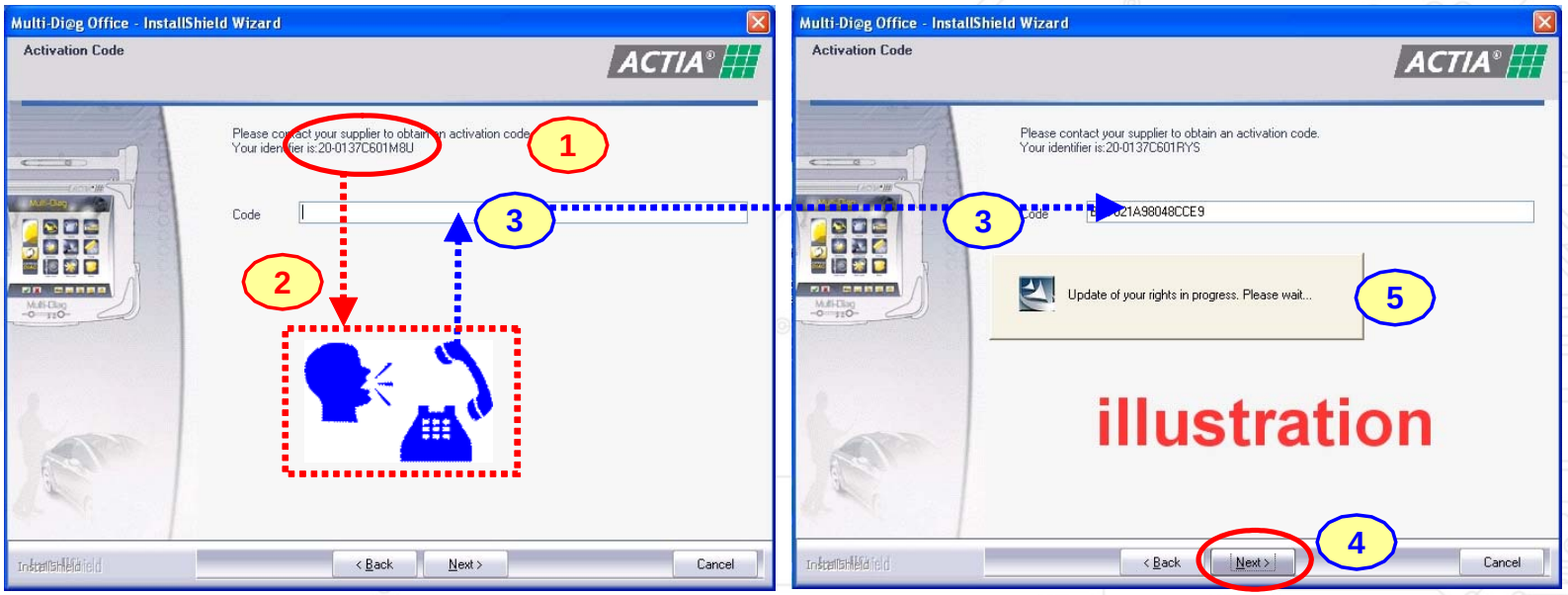
*You can skip this operation during installation but it needs to be completed at a later time anyway. **The programme will not run without the authorization code**. This requirement will appear every time a new PC or VCI is connected or on the reinstallation of the operation system.*

Important warning!

*The "authorization code" can be acquired **only over the phone** at a moment when it is necessary to contact the authorization centre (ATAL spol. s r.o. Tábor Hot Line) or potentially via your dealer. Prior to calling, have the following prepared:*

a) 6-digit number of the VCI (see note on Page 35)

b) A generated identifier (see picture below)



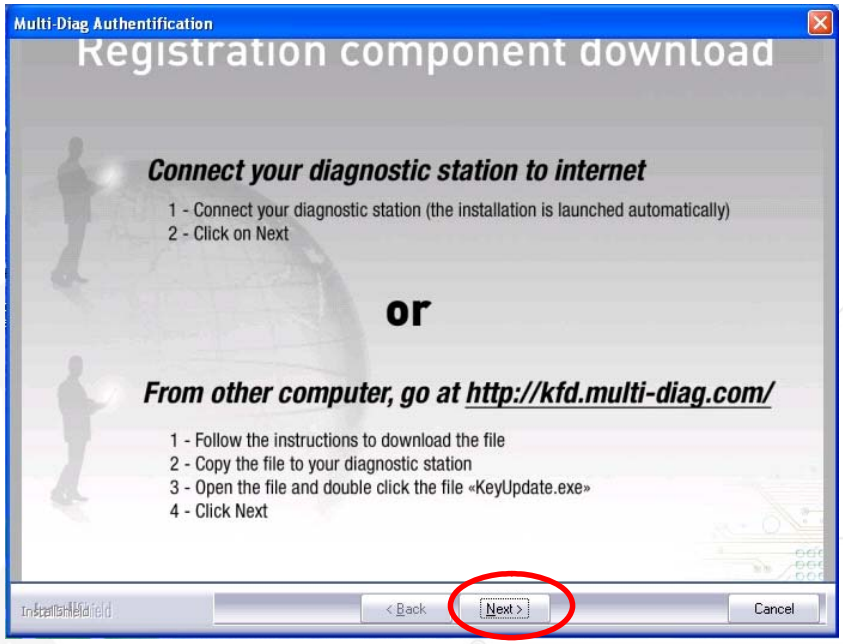
5 *Requirement for the licence verification*

See the block diagram on Page 25 - section C

Recommendation!

Prior to proceeding with the licence verification, we recommend connecting the device to the Internet or checking an existing Internet connection for functionality (see Page 23) because the device will contact the authorization server, download the key and will automatically proceed with the installation.

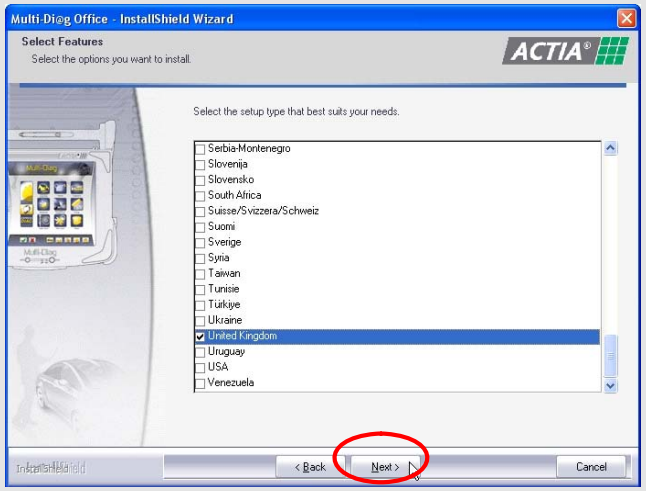
If your internet connection is not functional, you will need to verify the "activation code" manually!


Multi-Diag Authentification
Registration component download
Connect your diagnostic station to internet
1 - Connect your diagnostic station (the installation is launched automatically)
2 - Click on Next
or
From other computer, go at http://kfd.multi-diag.com/
1 - Follow the instructions to download the file
2 - Copy the file to your diagnostic station
3 - Open the file and double click the file «KeyUpdate.exe»
4 - Click Next
< Back
Next >
Cancel

If an unauthorized activation code is detected, the installation process will be terminated or it will return to the step where the new activation code is entered.

After the licence validity has been verified, the installation proceeds in a standard way.

6

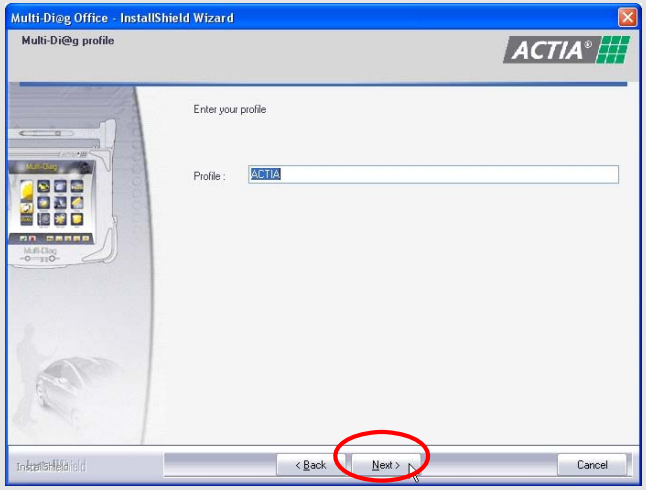


Select the setup type

7

Validation of setup type

8

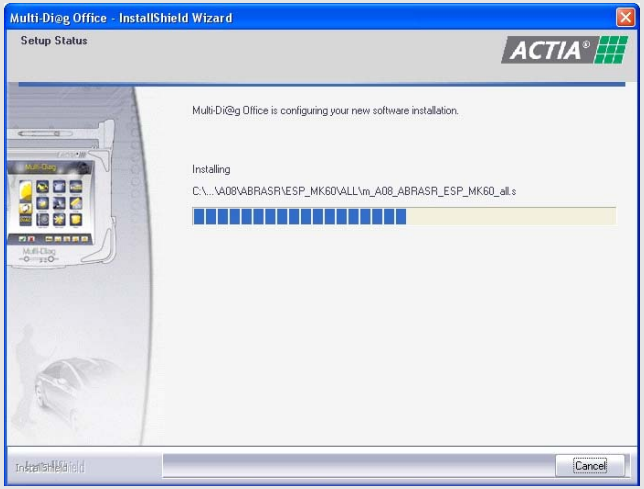


Enter your profile

Note to step 8:
In case the selected installation site is the "Czech Republic" (see step 6), the ATAL profile is selected by default (accompanying step 11 on Page 31).

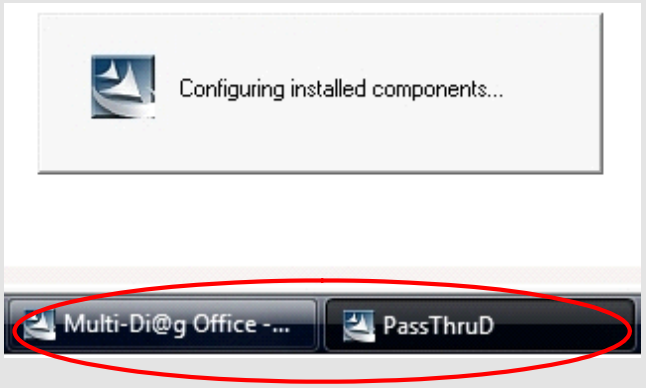
The preselected profile should not be changed!

9



Installing of Multi-Diag Office

10



Information on the configuring installed components ... (note – see step 14 on Page 31)

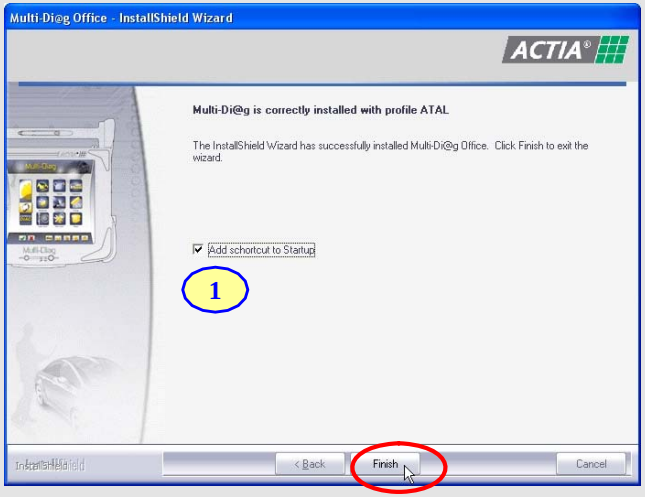
11

Multi-Di@g Office - InstallShield Wizard
ACTIA
Multi-Di@g is correctly installed with profile ACTIA
The InstallShield Wizard has successfully installed Multi-Di@g Office. Click Finish to exit the wizard.
< Back
Finish
Cancel

Click on "Finish" to complete the installation

The installation may take several minutes. Click on "Finish" to complete the installation.
Alternative – see step 11a

11a


Multi-Di@g Office - InstallShield Wizard
ACTIA
Multi-Di@g is correctly installed with profile ATAL
The InstallShield Wizard has successfully installed Multi-Di@g Office. Click Finish to exit the wizard.
Add schortcut to Startup
1
< Back
Finish
Cancel

Click on "Finish" to complete the installation

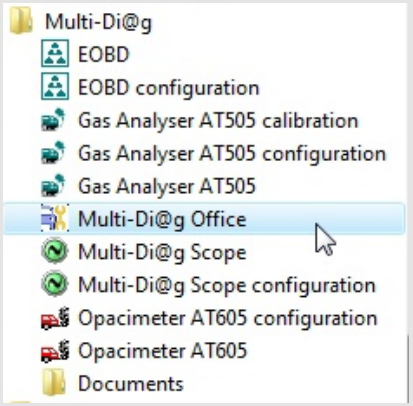
Alternative:

The installation may take several minutes. Click on "Finish" to complete the installation.

Note to Pos.1:
Checking the box "Add to Startup folder" will cause an automatic start of the Multi-Diag Office application after computer power up.
The check box appears for the profile ATAL *(see step 6, on Page 29).*

After successful program installation, a new Multi-Diag program group is created (see step 12), or updated if it already exists. A Multi-Diag icon (see step 13) is placed on the desktop.

12



Multi-Diag program group (Start \ Programs \ ...)

13

Multi-Diag Office program icon appears on the desktop of the screen

14

Windows Security
Windows can't verify the publisher of this driver software
Don't install this driver software
You should check your manufacturer's website for updated driver software for your device.
Install this driver software anyway
Only install driver software obtained from your manufacturer's website or disc. Unsigned software from other sources may harm your computer or steal information.
See details

A warning of the Windows Vista operating system is displayed

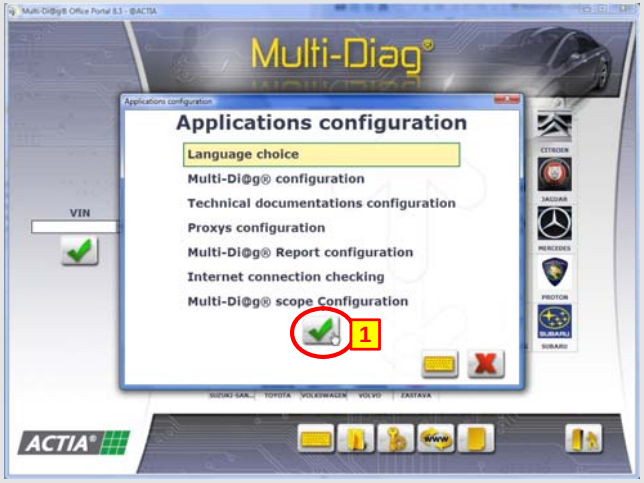
Note to step 14:
A warning of the OS Windows informs that the installed driver was not certified by Microsoft. This ***notification can be displayed*** *in the process of installation several times and it is possible to* ***ignore it without any concerns!***

Click the button (pos.1, step 15) and the configuration screen appears (see step15). An example of selecting the application language is provided in step 16.

15

Configuration screen – basic parameters

16

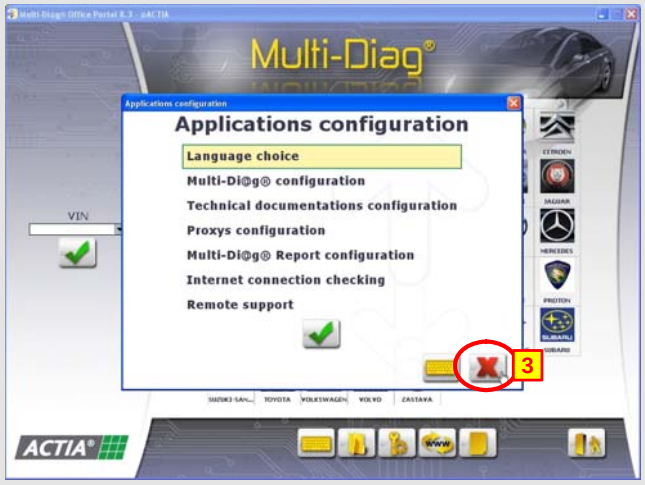


Configuration dialogue box, specifically for the application language selection (in this case changed from Czech into English) - step 1st

17

Configuration dialogue box, specifically for the application language selection (in this case changed from Czech into English) - step 2nd

18



Configuration dialogue box, specifically for the application language selection (in this case changed from Czech into English) - step 3rd

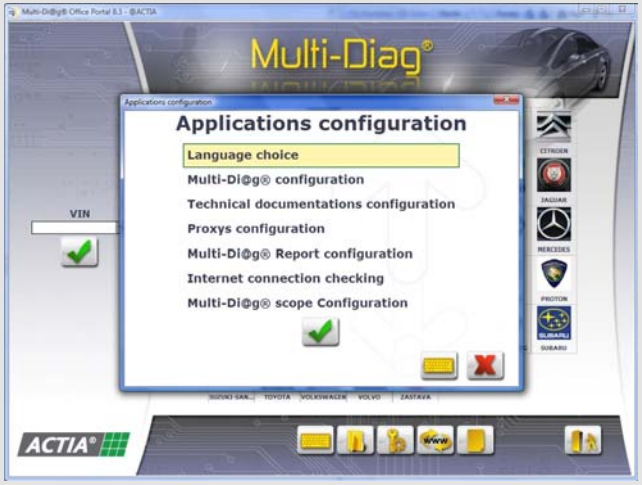
Warning:
*For the „**Czech Republic**“ installation site only (see step 6 on Page 29) and profile **ATAL** (see step 8 on Page 29)*

The VCI configuration step is essential to the operation of your diagnostic tool. You must therefore remember to configure your VCI before using it for the 1st time.

Warning:
Remember to reconfigure your VCI if you replace it

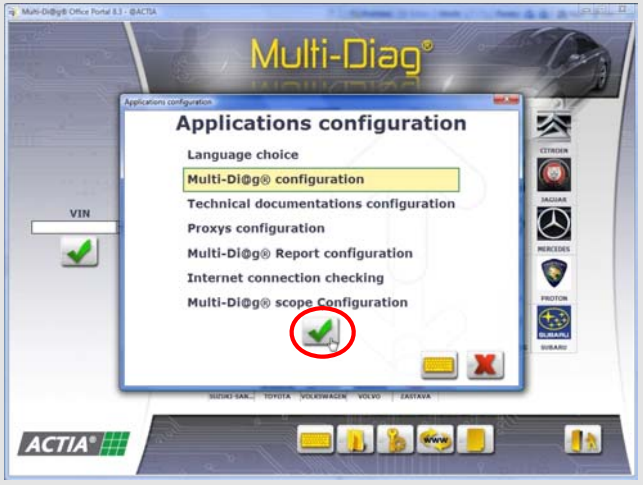
Click the button (pos.1 step 15, on Page 33) and the configuration screen appears (see step 19).
*Select from menu „**Multi-Diag Configuration**“ and confirm selection (see step 20).*

19



Configuration screen – basic parameters

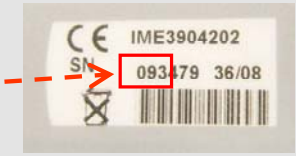
20



Multi-Diag configuration

Note:
You will find the VCI serial number to be entered at the back of the VCI (6 digits).

21



VCI Serial Number dialogue box

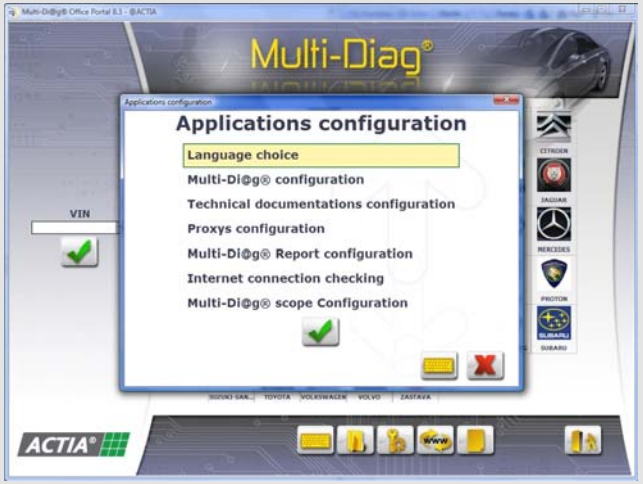
Note to step 21:

- *This number is identical for each device and cannot be substituted!*
- *It shall correspond to the label stuck on the interface (see picture above) and to the ”released“ number on the CD that was entered when burning on the CD depending on the paid license (carried out by the Sales Department).*
- *If for instance a small letter instead of a capital letter is entered, the interface WILL NOT COMMUNICATE with the computer and therefore the diagnostic program will not run either.*
- ***If the program update is carried out, this dialogue box will not be displayed!** The necessary data are known from the previous installation.*

You must configure the Bluetooth link between the VCI and your diagnostic station in order to benefit from the wireless connection possibilities offered by the tool.

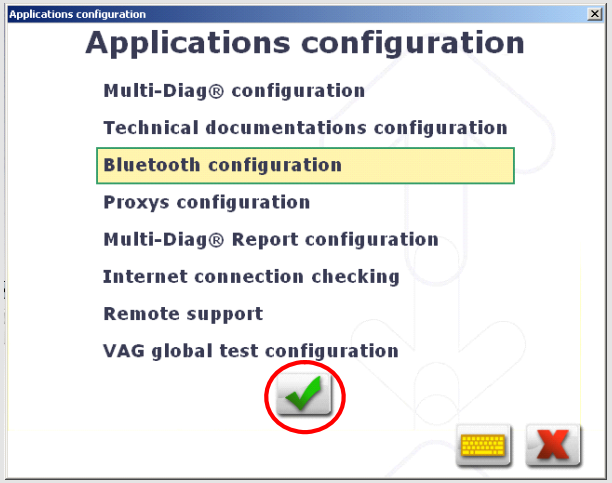
1st step	Check that your diagnostic station has a Bluetooth-type wireless connection. If such is not the case, you can use a Bluetooth antenna connected to a USB port. During the connection, your diagnostic station automatically recognises the Bluetooth device.
2nd step	Connect the VCI to the vehicle by using the OBD cable. The VCI is now powered up.
3rd step	Launch the configuration application to configure the Bluetooth link between your diagnostic station and the VCI. Follow the steps below.

22



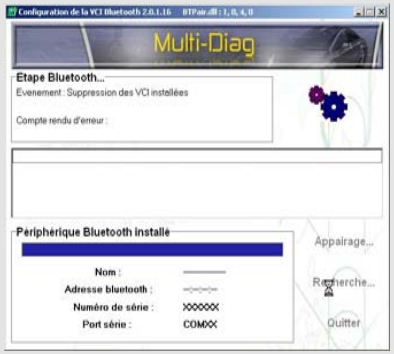
Click on the "**Configuration**" button in the navigation toolbar.

23



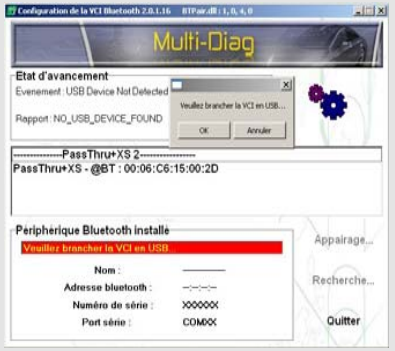
The "**Application configuration**" screen is displayed.
Select "**Multi-Diag Configuration**".

24



Wait while the configuration application is being launched.

25

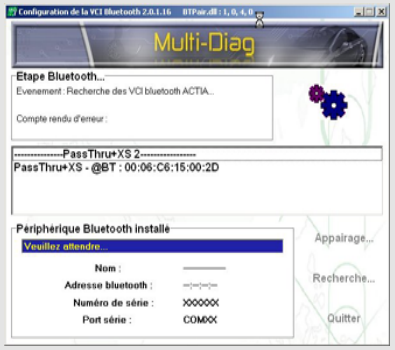


To continue with the configuration,
you must connect the VCI in USB wire mode.

26

Connect the VCI to your diagnostic station using the USB cable provided.

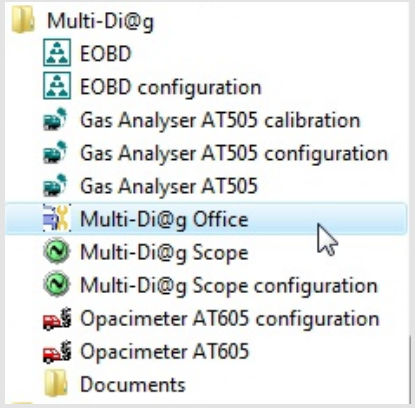
27



The VCI has been configured.
Click on the **"Exit"** button to exit the application.

*To start the program up, click on the **Multi-Diag** icon on the monitor desktop (see step 28) or on the **Multi-Diag Office** option from the „**Start\Programs**“ program group (see step 29).*
Control program is intuitive and makes use of custom Windows operating system.

28



Multi-Diag program group(Start \ Programs \ ...)

29

Multi-Diag Office program icon appears on the desktop of the screen

Note for the USB port:

*If the USB communication is selected the „**Multi-Diag VCI**“ icon will be displayed on the Windows Main Toolbar (on the lower right-hand side of the screen).*

30

Program Multi-Diag icon when communicating via USB port

IV – **MULTI-DIAG** SOFTWARE

Navigation Toolbar program Multi-Diag Office and navigation buttons

Keyboard button
Displays the digital keyboard

Documentation button
Quick access to the user guide, as well as to previous Multi-Diag News and other resources.

Configuration button
Access the menu used to change the parameters and settings of your Multi-Diag.

Internet upgrade button
Upgrade your tool using the Internet.

Diagnostic report button
View your latest diagnostic reports, as well as those you have archived.

Exit button
Exit the Multi-Diag application.

Other buttons for you to discover along the diagnostic process

Validate button
Validate your choice or select a function.

Cancel button
Answer a question in the negative and/or cancel an action in progress.

Back button
Go back.

Tip

The navigation toolbar is displayed on all screens in the software, do not hesitate to refer to it.

The Multi-Diag software allows you to create a link between your technical documentation (which includes a set of data for vehicle maintenance and repair) and your electronic diagnostic tool.

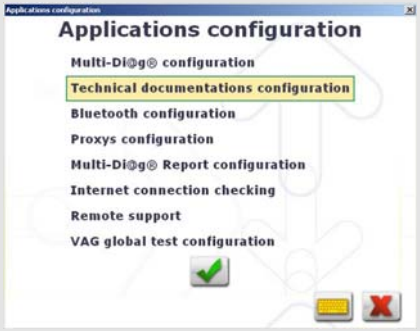
1

Install your technical documentation software (Autodata or VIVID, not included).

2

Click on the **"Configuration"** button in the navigation toolbar.

3



The **"Application configuration"** screen is displayed.
Select **"Technical documentation configuration"**.

4

Select the technical documentation database already incorporated into your tool (AutoData, Vivid).
Then click on the **"Validate"** button.
Your documentation interface has been installed.

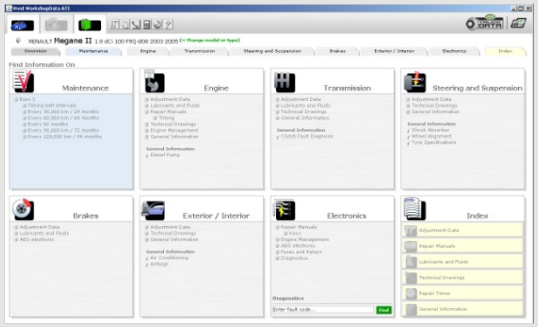
Technical data - How to look up the technical documentation database

In the course of a diagnostic, you will be offered a direct link to the data required for the diagnostic in progress.

1

Once the function has been chosen, select the **"Technical data"** tab.
Click on the technical documentation you wish to look up.

2



The selected electronic technical documentation
is immediately opened at the relevant chapter.

You will also find in the "Technical data" tab links to a set of technical data (provided by ACTIA) associated with the diagnostic in progress.

In the example above (Renault Mégane II), you have access to the configuration procedure for electro-pneumatic valves.

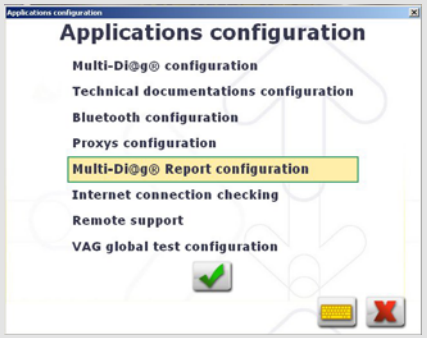
A diagnostic report includes all the data recorded during a diagnostic.
The Multi-Diag software gives you the possibility of archiving these data and of looking them up at a later stage.

You can customise the diagnostic report by adding personal data.

1

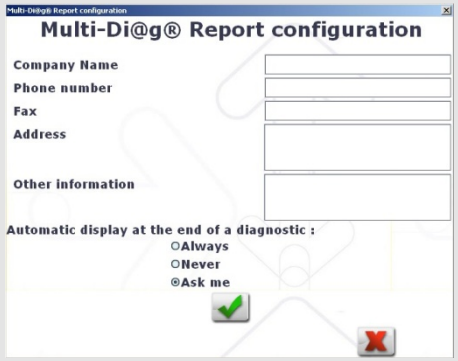
Click on the **"Configuration"** button in the navigation toolbar.

2



The **"Application configuration"** screen is displayed.
Select **"Multi-Diag Report Configuration"**.

3



Enter the information to be included in the report.

Tip

Add value to your service by customising the diagnostic report.

All diagnostics are stored in a "Diagnostic report" database. You can manage them according to your requirements.

1

Click on the **"Diagnostic report"** button in the navigation toolbar.

2

Report Choice
N° Date Customer Vehicle ECU
1 08/01/09 13:48 RENAULT MEGANE II ESP8
2 07/01/09 15:46 RENAULT MEGANE II ESP8
3 04/11/08 15:13 BMW Express Di@g
4 04/11/08 15:01 BMW Express Di@g
5 04/11/08 14:57 BMW Express Di@g
6 04/11/08 14:53 BMW Express Di@g
7 03/11/08 16:00 OPEL MERIVA, Tableau de bord BG 13201075
8 03/11/08 16:00 OPEL MERIVA, Y 17 DT
Select the whole page
1/3

Select a diagnostic report in the list.
Double-click to access the detailed report.

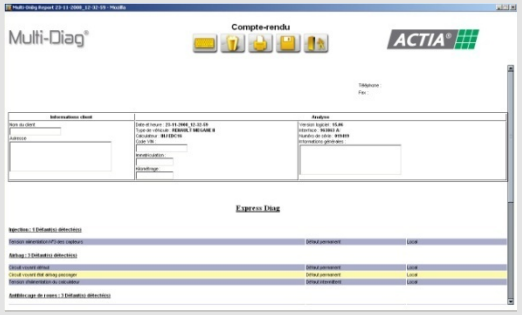
Archive the report selected

Look up the archives

Permanently delete a report

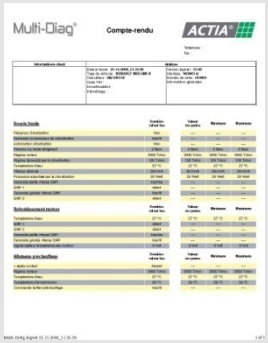
You can print your report to keep a written record. You can also, at any time, provide your customer with this document, which lists all the tests performed in the course of the diagnostic..

3



Print your report.
You can either save it or delete it.

4



Example of printout of a customised diagnostic report.

Display the digital keyboard to enter customer-related information

Permanently delete a report

Print a report

Save a report

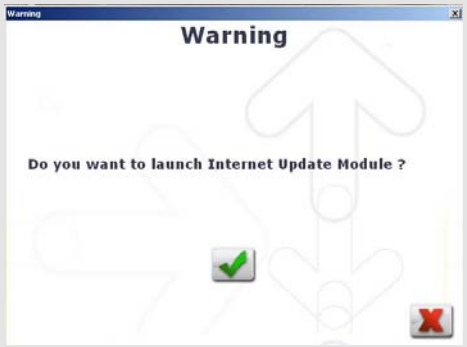
Exit the Multi-Diag application

You can upgrade your tool via the Internet. To do this, you must have an Internet connection.

1

Click on the **"Internet upgrade"** button in the navigation toolbar.

2

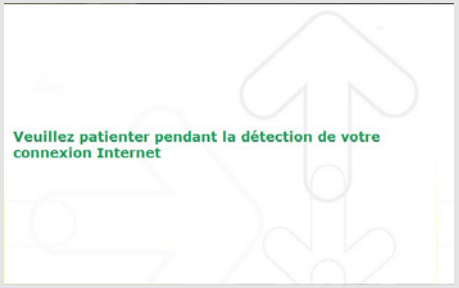


Click on the **"Validate"** button to continue.

3

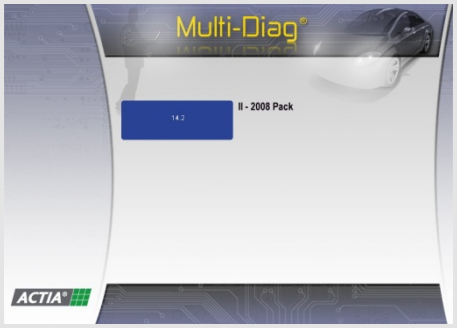
Click on the **"Validate"** button in the bottom right-hand corner to launch the Multi-Diag Update interface.

4



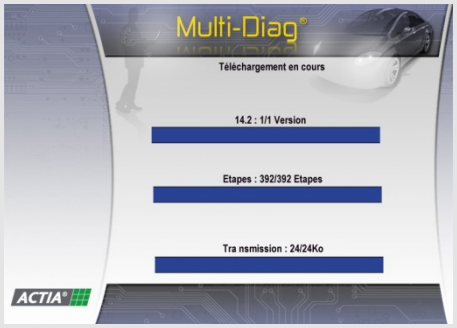
Wait while connection to the upgrade server is being established.

5



Select the upgrade you wish to install.

6



Wait while the data are being downloaded.

7

Avertissement
La mise à jour Internet est terminée. Veuillez quitter les applications actuellement en cours d'exécution.

The download is completed.
Restart the Multi-Diag software in order to be able to use the new functions.

The 1st step in the diagnostic consists in selecting the vehicle. You have a choice between three possibilities:

Entering the VIN identifier

1

Enter the vehicle VIN identifier.
Then click on the **"Validate"** button.

Automatic selection

1

Click on the **"Automatic vehicle selection"** button on the home screen.

2

Wait while the connection is being established.

3

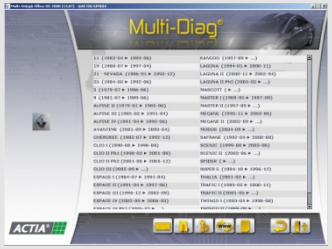
Proceed with your diagnostic.

Manual selection

1

Select the make of the vehicle.

2



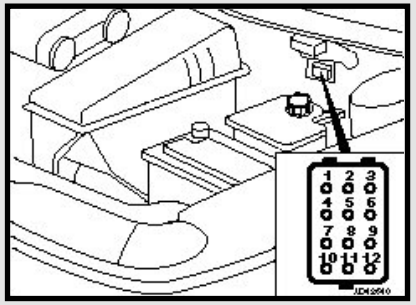
Select the vehicle model.

Once the vehicle has been selected, connect your tool to the diagnostic socket of your vehicle.
Multi-Diag proposes diagrams, photos and videos to help you locate the vehicle diagnostic socket

1

Click on the Localisation icon.

2



View the location of the diagnostic socket using the diagrams, photos and videos available in the tool.

IV – **MULTI-DIAG** SOFTWARE

Diagnostic - Workshop mode and Expert mode

Multi-Diag®

Workshop mode

For quick repair or maintenance.
Direct access to the diagnostic applications classified according to activity (8 activity icons)

Expert mode

For a more in-depth repair or diagnostic.
Access to advanced functions, ECU by ECU

Tip

Activity in colour: available on this vehicle

Shaded activity: not available on this vehicle

Workshop mode

Wheels and suspension:
Configuration of tyre size, work on electronic shock absorbers, configuration of electronic valves (DSG, SSP, etc.), calibration of the steering wheel angle sensor

Maintenance:
Maintenance indicator reset, reading/deletion of defaults, Express Diag, etc.

Air conditioning:
Diagnostic of automatic air-conditioning systems, additional heating

Anti-pollution and exhaust system:
Maintenance and replacement of the particle filter, lambda sensor, OBD test, anti-pollution diagnostic.

Body and windshield:
Airbag locking/unlocking, reverse radar, xenon headlights, rain sensor, airbag ECU

Braking:
Diagnostic of ABS/ESP ECU's, locking/unlocking of electric brakes, purging of brake system, initialisation of slope sensor, etc.

Equipment:
Installation of after-sales products, alarm, radio, CD pack, coupling system, etc.

Expert mode:
Access to advanced functions, ECU by ECU

Engine:
Injection ECU, injector programming, automatic gearbox, EGR valve, etc.

Expert mode

Multi-Diag®

Diagnostic - Express Diag

The Express Diag function allows you to perform a quick diagnostic over the whole vehicle.

With just one click, you can view all the DTC's for all ECU's in the vehicle.
An overview of the general electronic status of the vehicle is displayed on a single screen.
At the same time, the tool automatically generates a diagnostic report summarising the results of this test. You can print this report at any time, so as to keep a hard copy for archiving, or to have a supporting document to give to your customer.

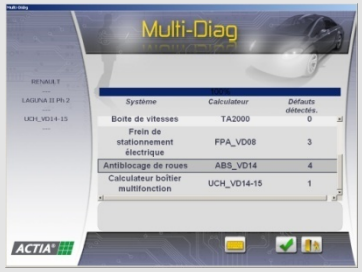
1

Click on the **"Express Diag"** icon.

2

Please wait while the tool scans all the ECU's.

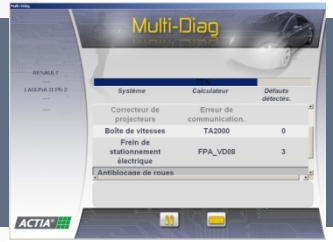
3



Select the ECU of your choice.
Click on the **"Validate"** button.

4

A description of the defaults is displayed in a window.
Select them if necessary.
Use the **"Eraser"** tool in the navigation toolbar to erase them.

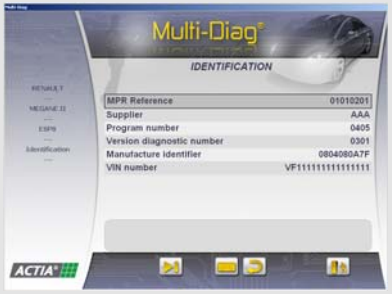


Express Diag in Expert mode

Read all DTC's on all ECU's in the vehicle.
Directly access all ECU functions (identification, reading and deletion of the default memory, reading of parameters, actuator testing, configuration, etc.).

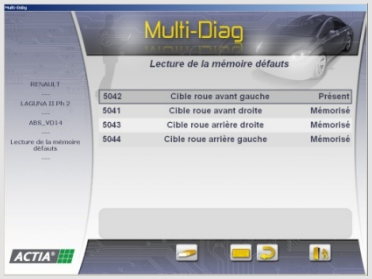
Below are a few examples of the applications most frequently used when selecting an ECU:

Identification



Obtaining information on the ECU:
Product reference /
Supplier's name /
Software version / VIN code / etc.

Reading of the default memory


Multi-Diag
Lecture de la mémoire défauts
5042 Cible roue avant gauche Présent
5041 Cible roue avant droite Mémorisé
5043 Cible roue arrière droite Mémorisé
5044 Cible roue arrière gauche Mémorisé

Viewing the defaults present or stored on the ECU.
Default present = Permanent default
Stored default = Intermittent default.

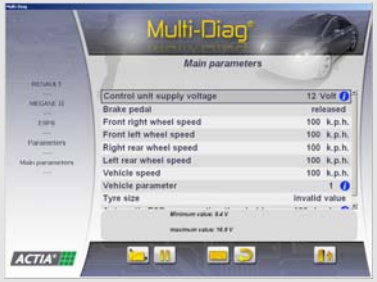
for more information, see Page 52

Erasing DTC's

Delete all defaults present on the ECU.

for more information, see Page 52

Parameters


Multi-Diag
Main parameters
Control unit supply voltage 12 Volt
Brake pedal released
Front right wheel speed 100 k.p.h.
Front left wheel speed 100 k.p.h.
Right rear wheel speed 100 k.p.h.
Left rear wheel speed 100 k.p.h.
Vehicle speed 100 k.p.h.
Vehicle parameter 1
Tyre size invalid value

View all parameters managed by the ECU.

for more information, see Page 53

Actuators

Activate the actuators managed by the ECU.

for more information, see Page 55

Configuration

Configure elements managed by the ECU.

for more information, see Page 56

Reading of the default memory

You can view the DTC's present or stored on the ECU by using the **"Read the default memory"** function.

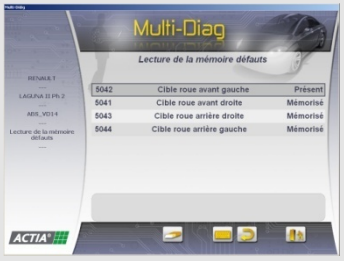
1

Select the ECU of your choice.

2

Double-click on **"Read the default memory"** to view the defaults.

3


Multi-Diag
Lecture de la mémoire défauts
5042 Cible roue avant gauche Présent
5041 Cible roue avant droite Mémorisé
5043 Cible roue arrière droite Mémorisé
5044 Cible roue arrière gauche Mémorisé
ACTIA

A new window is displayed, showing the DTC, the associated meaning, and the default status (present or stored). Select the default to be deleted. Erase it by using the "Eraser" tool in the navigation toolbar.

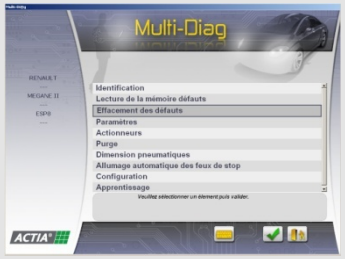
Erasing DTC's

You can immediately delete the DTC's present by using the **"Erase DTC's"** function.

1

Select the ECU of your choice.

2



Double-click on **"Erase defaults"**.

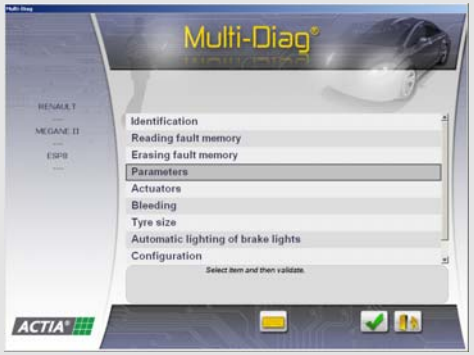
3

Click on the **"Validation"** key in the bottom right-hand corner to confirm your choice. The failure memory is then erased.

Parameters

You can view the data generated by all the sensors and processed by the ECU being questioned.

1

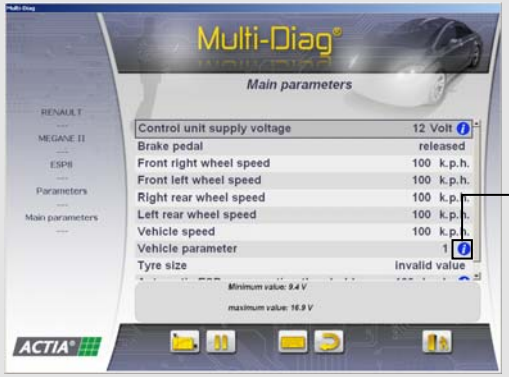


Once the ECU has been selected, the "Parameter" menu is displayed.

2

Select the group of parameters you wish to view.

3



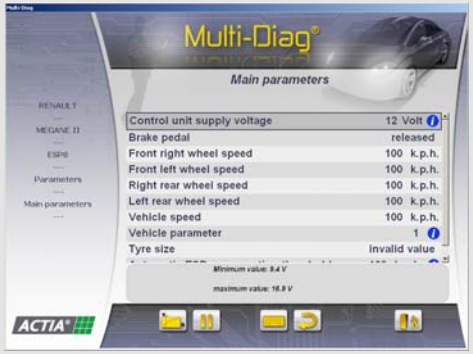
The list of parameters is displayed.
The value measured in real time by the ECU is specified for each parameter.

This icon means that reference data are available
at the bottom of the page.
These data will help you understand the information displayed.

Parameters - Graphic viewing

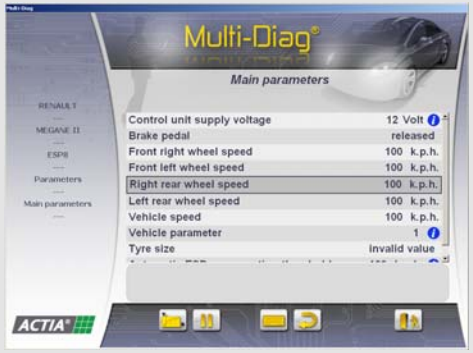
Using this function, which is accessible from the "Parameters" menu, you can view the changes in value of the parameter in graphic mode along a time axis.

1


Multi-Diag®
Main parameters
Control unit supply voltage 12 Volt
Brake pedal released
Front right wheel speed 100 k.p.h.
Front left wheel speed 100 k.p.h.
Right rear wheel speed 100 k.p.h.
Left rear wheel speed 100 k.p.h.
Vehicle speed 100 k.p.h.
Vehicle parameter 1
Tyre size invalid value
ACTIA

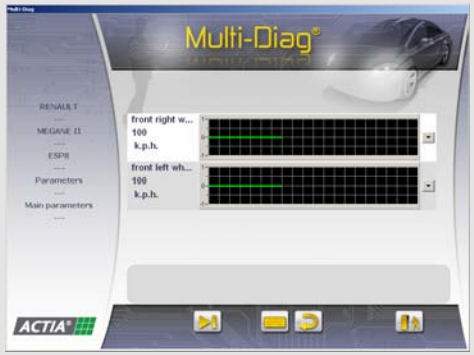
Click on the **"Graphics"** button in the navigation toolbar.

2


Multi-Diag®
Main parameters
Control unit supply voltage 12 Volt
Brake pedal released
Front right wheel speed 100 k.p.h.
Front left wheel speed 100 k.p.h.
Right rear wheel speed 100 k.p.h.
Left rear wheel speed 100 k.p.h.
Vehicle speed 100 k.p.h.
Vehicle parameter 1
Tyre size invalid value
ACTIA

Select the parameters to be monitored (4 maximum).

3

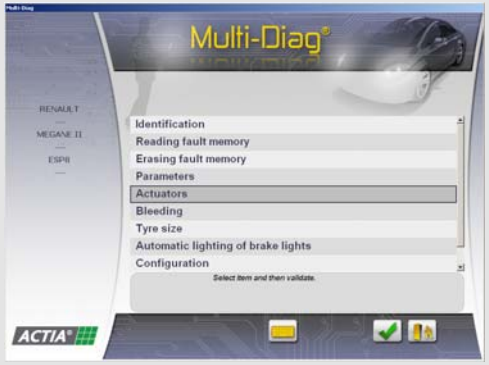


View the changes to your parameters over time (horizontal axis) and to the values of the parameter being monitored (vertical axis).

Actuators

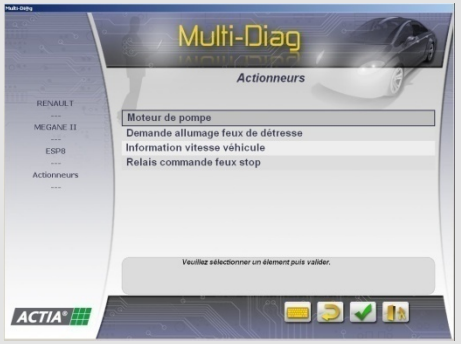
This application enables you to test all the actuators managed by the ECU being questioned.

1



Select **"Actuators".**

2

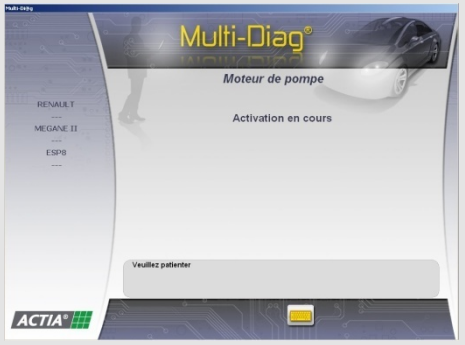


In the list, select the actuator you wish to test.

3

Follow the instructions to perform the diagnostic.

4



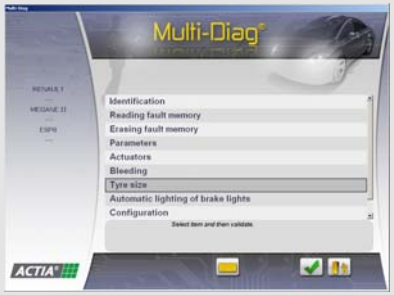
The diagnostic is launched.

Configuration

This application enables you to configure the ECU's.

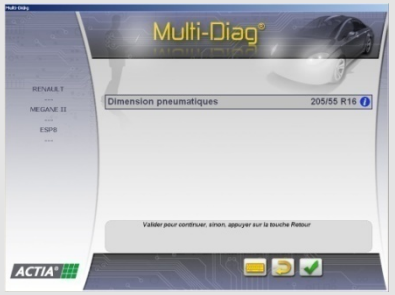
The example below provides an illustration of a change in tyre dimensions, requiring modification to the configuration of the ABS ECU.

1



Select the ECU (ABS), and then **"Tire size"**.

2



Make your selection and click on the **"Validate"** button.

3

Make your selection and click on the **"Validate"** button.

4

Your selection is displayed. Click on the **"Confirmation"** button to confirm.

5

The change in configuration is confirmed in a window. Click on the **'Validate"** button.

V – IMPORTANT INFORMATION

Instructions for use

Preliminary remarks

- This tablet is for professional use only.
- The tablet must be used in compliance with ACTIA instructions.
- Power supply voltage 8 V to 16 V.

A supply voltage outside these limits may damage the tablet.

Environment

- Use the tablet at an ambient temperature of 0°C to 45°C for the Multi-Diag Master, and between 0°C to 35°C for the Multi-Diag Mobile.
- Protect the tablet from prolonged exposure to sunlight.
- Do not place the tablet near sources of flammable liquids to prevent any risks of explosion and fire.
- Do not use the tablet in the rain or on damp surfaces to prevent any risk of electric shock or damage to the tablet.
- Do not splash the tablet with liquids (water, acid, cleaning fluids, etc.).
- Do not leave the cables or peripherals near a source of heat or hot materials.

Handling

- Do not drop the tablet.
- Do not use peripherals (e.g. cables) other than those supplied by ACTIA.
- Do not install any software package other than those recommended by ACTIA.
- Avoid using the tablet for very long periods (several hours), since some parts of the tablet (I/O connector) may become very hot.
- Handling the tablet by the plastic parts to avoid burns.
- Do not allow the cables to run over the corner of tables, workbenches or shelves.
- Only use the stylus provided, in order to prevent damage to the touch-sensitive screen.
- Do not force the CD-ROM drive open (class 1 laser item), this could cause physical damages.
- Do not pull on the mains cable when unplugging the tablet from the power supply. Grip the connector when performing this operation.
- On road tests, secure the tablet using the vehicle's seat belts.
- The road test must not be conducted by the driver. Only a passenger must carry out the test.
- Do not place the tablet on an Airbag stowage location. The Airbag may be triggered.

Maintenance

In case of damages
- Do not use the tablet.
- Contact your retailer's After-Sales service.
- If the screen glass is broken, do not inhale, touch or ingest liquid crystals.

Glass splinters

Cleaning

- For external cleaning of the tablet, use a soft cloth impregnated with an suitable cleaning agent (cleaning agent for computer screen).

Do not use solvents

Batteries

Safety precautions
- Do not cause any short-circuits between the 3 battery terminals.
- Do not use the battery for any other applications (emission of a toxic substance and deterioration of the battery).
- Keep the battery away from any flammable sources.
- If the battery life drops, change the battery.
- Always replace the battery with a battery of the same type.
- Do not reverse the polarity of the battery.

Charging the battery

The battery must be charged using the mains adapter only. Do not use a standard charger.
Charge conditions: temperature between 10°C and 40°C for Multi-Diag Master, and between 10°C and 35°C for Multi-Diag Mobile.

The battery must be charged if:
- You have changed the battery and it is not charged.
- The charge indicator shows an insufficient autonomy (see chapter: Diagnostic stations).

To optimise battery performance, we recommend that you charge the battery to 100% (no partial charge) and only charge the battery when it is completely discharged.

V – IMPORTANT INFORMATION

Legal provisions

This tool is intended for informed professionals, who as such have, on the one hand, made their own decision to purchase, with no IT consulting service to be provided by ACTIA, who have no obligation towards them in this respect, and who on the other hand, accept the software and associated user guide as it is, without redress against ACTIA, either due to an apparent or hidden default, or to the decisions taken by the users based on its consequences, which come under their own competence and professional care, or to direct or consequential damages which may result from its use and operation.
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Recycling

The packaging materials for this product are recyclable and can be reused.
All materials must be disposed of in accordance with local recycling rules.
When disposing of this device, be sure to comply with the law or local regulations.
Batteries must never be thrown away or incinerated, but disposed of in accordance with local regulations concerning chemical waste.
This product and the accessories packaged with it comply with the EEE directive, except for the batteries.